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Letter to Editor

Screening for Social Determinants of Health by General Practitioners: A Psychometric Analysis

Dear Editor

The majority of health professionals are aware of the importance of social determinants of health (SDOH). However, they seem to be unaware of how to screen patients with SDOH and where to refer them when a problem is identified.[1] Their reluctance to screen for SDOH is compounded by the lack of social infrastructure, incentives, and resources.[2] To assess how SDOH is screened by health professionals, a cross-sectional study was conducted in 2021 among 250 general practitioners in Kerman, Iran. The study was approved by the Ethics Committee of Kerman University of Medical Sciences (code: IR.KMU.REC.1399.596), and written informed consent was obtained from the participants.

A questionnaire was designed based on the 15-item Social Needs Screening (SNS) tool developed by the American Academy of Family Physicians.[3] The forward-backward translation method was used to develop the Persian version of the questionnaire, which was then assessed by an expert panel (content validity index=0.78-0.95). Based on the recommendations of the expert panel, six questions were added to the questionnaire. Then, the reliability of the 21-item Persian version of the questionnaire was assessed in a pilot study. The participants were asked to indicate whether they would screen their patients using the 21-item questionnaire. The response of the general practitioners was scored based on a five-point Likert scale, and the following values were assigned to each question, namely always: 4, often: 3, occasionally: 2, rarely: 1, and never: 0. The scores were then converted to a 0-100 scale. Data were analyzed using SPSS software version 22.0 (SPSS Inc., Chicago, IL, USA) and Lisrel software version 8.80 (Scientific Software International, Chicago, IL, USA).

The mean age of the general practitioners was 34.29±9.95 years, and the majority were women (70%). Based on the exploratory factor analysis, the Kaiser-Meyer-Olkin (KMO) value was 0.89, and Bartlett's test of sphericity was statistically significant (P=0.001, χ^2=2906.83, df=210). The results of the principal component analysis revealed four factors with eigenvalues >1. The total variance explained by these factors was 62.56% (Economics=39.05%, Psychologic=11.03%, Social=7.13%, and Security=5.34%). The convergent validity (average variance extracted=0.40-0.73, composite reliability=0.72-0.89) and discriminant validity were confirmed. The results of confirmatory factor analysis showed that the model had acceptable indices for the goodness of fit, i.e., Chi square distribution with df (χ^2/df)=3.18, the root mean square error of approximation (RMSEA)=0.09, normed fit index (NFI)=0.92, comparative fit index (CFI)=0.95, and incremental fit index (IFI)=0.95. Cronbach's alpha coefficient for the internal consistency of each subscale of the instrument was good and ranged from 0.75 to 0.93.

The economics (30.06±1.2) and social (70.06±1.1) subscales had the lowest and highest score, respectively. The total score for SDOH screening (47.20±0.9) was significantly lower than the accepted average value (P=0.003). This score was lower among female participants, and those who were single or working in the private sector; however, the difference was not statistically significant. Our findings are in line with a study by Fraze and colleagues that reported only 15.6% of the physicians in the United States screened patients for social needs.[4] This indicates that SDOH screening is generally ignored in clinical settings. It is therefore strongly recommended that health systems integrate SDOH screening into clinical practice. In addition, it should be included in the curriculum of medical students not only to create awareness of the importance of SDOH but also to highlight the necessity of using screening methods to properly address potential social problems. In the absence of proper instruments for SDOH screening and subsequent referral of patients with social problems, inappropriate screening has the opposite effect and will only lead to more confusion and frustration for patients. Given the time constraints in medical practice, only a simple, valid, and reliable tool can bring any benefit to SDOH screening. Our proposed instrument showed good psychometric properties and is recommended as a screening tool for SDOH. The present

study is among the very few studies in Iran that highlight the shortcomings in SDOH screening by general practitioners. Our findings will guide health policymakers to make informed decisions.

Keywords ● General practitioners ● Screening ● Social determinants of health

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Authors' Contribution

M.J, F.B and H.A: study concept and design, acquisition and interpretation of the data, and drafting and critical revision of the manuscript. All the authors have read and approved the final manuscript and agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Conflict of Interest: None declared.

Mohammad Jafari Sirizi[1], MD; Fatemeh Badpa[2], MD; Habibeh Ahmadipour[3], MD

[1]Iran Health Insurance Organization, Kerman, Iran;

[2]Department of Community and Family Medicine, School of Medicine, Kerman University of Medical Sciences, Kerman, Iran;

[3]Social Determinants of Health Research Center, Institute for Futures Studies in Health, Kerman University of Medical Sciences, Kerman, Iran

Correspondence:
Habibeh Ahmadipour, MD;
Department of Community Medicine, Afzalipour Medical School, 22nd Bahman Blvd., Postal code: 76169-14115, Kerman, Iran
Tel: +98 34 33257313
Fax: +98 34 33257671
Email: ahmadipour@kmu.ac.ir
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